# RGBW4C

User Instructions

2/12

## RGBW4C General Information

***Unpacking:*** Thank you for purchasing the RGBW4C by American DJ®. Every RGBW4C has been thoroughly tested and has been shipped in perfect operating condition. Carefully check the shipping carton for damage that may have occurred during shipping. If the carton appears to be damaged, carefully inspect your fixture for any damage and be sure all equipment necessary to operate the unit has arrived intact. In the event damage has been found or parts are missing, please contact our toll free customer support number for further instructions. Please do not return this unit to your dealer without contacting customer support first.

***Introduction:*** The RGBW4C is a 32-channel RGB, RGBW or RGBA LED controller. Up to 8 LED fixtures or fixture groups can independently be controlled via four fixture buttons. The units control panel includes; 9 “Static Color/Chase” buttons, which contain pre-programmed colors and chase programs, 3 programmable color preset buttons, 4 multi function faders that control RGBW intensities, as well as program speed, fade time, and master dimmer. There are 8 buttons used to select the operation mode, including RGB Fade, Auto Run, Color Macro, Chase, Sound Active, Strobe, Manual RGBW and Blackout modes. The RGBW4C is one of the simplest and most versatile LED controllers available today. It is ideal for D.J.’s, nightclubs, lounges, bars, and anyone that wants easy control of LED Par’s, Bar’s, Flood’s, or Panel’s.

***Customer Support:*** American DJ® provides a toll free customer support line, to provide help and to answer any question should you encounter problems during your set up or initial operation. You may also visit us on the web at www.americandj.com for any comments or suggestions. Service Hours are Monday through Friday 8:00 a.m. to 4:30 p.m. Pacific Standard Time.

Voice: (800) 322-6337
Fax: (323) 582-2941
E-mail: support@americandj.com

To purchase parts online visit http://parts.americandj.com

***Warning!*** To prevent or reduce the risk of electrical shock or fire, do not expose this unit to rain or moisture.

## RGBW4C General Instructions

To optimize the performance of this product, please read these operating instructions carefully to familiarize yourself with the basic operations of this unit. These instructions contain important safety information regarding the use and maintenance of this unit. Please keep this manual with the unit, for future reference.

## RGBW4C Features

- 9 Static Colors
- RGBW Faders To Create Desired Color
- 9 Chases
- Auto, Program, RGBW, Chase, and Sound Active Modes
- Adjustable Program and Fade Speed
- Adjustable Sound Sensitivity
- Strobing
- Blackout

## RGBW4C Product Registration

The RGBW4C carries a 1 year (365 days) limited warranty. Please fill out the enclosed warranty card to validate your purchase and warranty. You may also register your product online at www. americandj. com. All returned service items whether under warranty or not, must be freight pre-paid and accompany a return authorization (R.A.) number. If the unit is under warranty you must provide a copy of your proof of purchase invoice. Please contact American DJ® customer support for a R.A. number.



## RGBW4C DMX

**Power Supply:** Before plugging your unit in, be sure the source voltage in your area matches the required voltage for your American DJ® RGBW4C. The American DJ® RGBW4C is 120v only. Only use the included power supply to power RGBW4C.

**DMX-512:** *DMX is short for Digital Multiplex. This is a universal protocol used by most lighting and controller manufactures as a form of communication between intelligent fixtures and controllers.* A DMX controller sends DMX data instructions from the controller to the fixture. DMX data is sent as serial data that travels from fixture to fixture via the DATA “IN” and DATA “OUT” XLR terminals located on all DMX fixtures (most controllers only have a DATA “OUT” terminal).

**DMX Linking:** DMX is a language allowing all makes and models of different manufactures to be linked together and operate from a single controller, as long as all fixtures and the controller are DMX compliant. *To ensure proper DMX data transmission, when using several DMX fixtures try to use the shortest cable path possible. The order in which fixtures are connected in a DMX line does not influence the DMX addressing. For example; a fixture assigned a DMX address of 1 may be placed anywhere in a DMX line, at the beginning, at the end, or anywhere in the middle. Therefore, the first fixture controlled by the controller could be the last fixture in the chain. When a fixture is assigned a DMX address of 1, the DMX controller knows to send DATA assigned to address 1 to that unit, no matter where it is located in the DMX chain.*

**Data Cable (DMX Cable) Requirements (For DMX and Master/Slave Operation):** DMX controller and unit require a approved DMX-512 110 Ohm Data cable for data input and data output (Figure 1). We recommend Accu-Cable DMX cables. If you are making your own cables, be sure to use standard 110-120 Ohm shielded cable (This cable may be purchased at almost all professional sound and lighting stores). Your cables should be made with a male and female XLR connector on either end of the cable. Also remember that DMX cable must be daisy chained and cannot be split.

Figure 1

**Notice:** Be sure to follow figures two and three when making your own cables. Do not use the ground lug on the XLR connector. Do not connect the cable's shield conductor to the ground lug or allow the shield conductor to come in contact with the XLR's outer casing. Grounding the shield could cause a short circuit and erratic behavior.

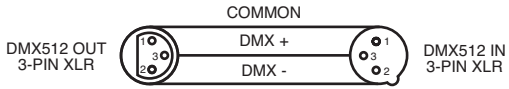
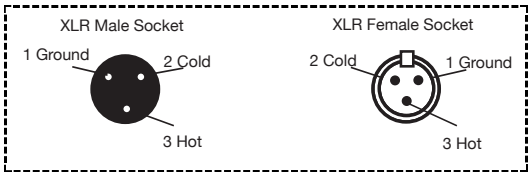



Figure 2




| XLR Pin Configuration |
|---|
| Pin 1 = Ground |
| Pin 2 = Data Compliment (negative) |
| Pin 3 = Data True (positive) |

Figure 3

***Special Note: Line Termination.*** When longer runs of cable are used, you may need to use a terminator on the last unit to avoid erratic behavior. A terminator is a 110-120 ohm 1/4 watt resistor which is connected between pins 2 and 3 of a male XLR connector (DATA + and DATA -). This unit is inserted in the female XLR connector of the last unit in your daisy chain to terminate the line. Using a cable terminator (ADJ part number Z-DMX/T) will decrease the possibilities of erratic behavior.

Termination reduces signal errors and avoids signal transmission problems and interference. It is always advisable to connect a DMX terminal, (Resistance 120 Ohm 1/4 W) between PIN 2 (DMX-) and PIN 3 (DMX +) of the last fixture.

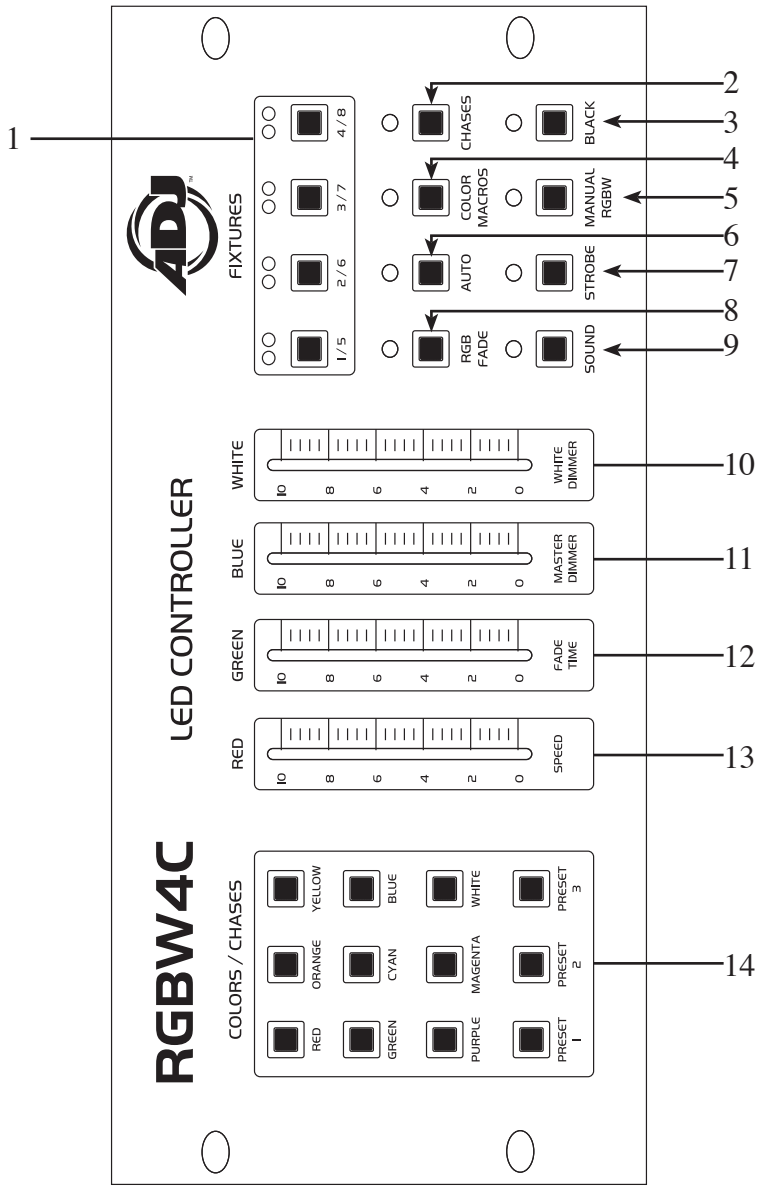
Figure 4





***5-Pin XLR DMX Connectors.*** Some manufactures use 5-pin DMX-512 data cables for DATA transmission in place of 3-pin. 5-pin DMX fixtures may be implemented in a 3-pin DMX line. When inserting standard 5-pin data cables in to a 3-pin line a cable adaptor must be used, these adaptors are readily available at most electric stores. The chart below details a proper cable conversion.

| 3-Pin XLR to 5-Pin XLR Conversion | | |
|---|---|---|
| Conductor | 3-Pin XLR Female (Out) | 5-Pin XLR Male (In) |
| Ground/Shield | Pin 1 | Pin 1 |
| Data Compliment (- signal) | Pin 2 | Pin 2 |
| Data True (+ signal) | Pin 3 | Pin 3 |
| Not Used | | Pin 4 - Do Not Use |
| Not Used | | Pin 5 - Do Not Use |








1. FIXTURE SELECTION - The RGBW4C can control up to 8 LED fixtures. Press one of the buttons and the corresponding LEDs above the button will light indicating which LED fixture can be controlled.

Example: Press the 1/5 button one time and the left LED will light indicating that fixture 1 can now be controlled. Press the button a second time and the right LED will light, indicating that fixture 5 can now be controlled. Press the button a third time and both LEDs will light, indicating that both fixtures can now be controlled. When you press the button the fourth time both LEDs will turn off, indicating that you cannot control the fixtures.

2. CHASE BUTTON - Press this button to activate chase mode. Press any of the color buttons in the COLORS/CHASES grid (14) to select your desired chase.

3. BLACKOUT - Activates and deactivates blackout mode

4. COLOR MACROS - Press this button to activate the COLOR MACROS. The COLOR MACROS can be controlled using the following:
   - The RED/SPEED FADER (13) will create your own color to remain staic.
   - The GREEN/FADE TIME FADER (12) will control the fade speed.
   - The BLUE/MASTER DIMMER FADER (11) will control the RGB LEDs intensity.
   - The WHITE/WHITE DIMMER FADER (10) will control the white LEDs intensity.

5. MANUAL RGBW - Pressing this button activates manual RGBW. When this mode is active you can press any of the color buttons located in the COLORS/CHASE grid (14). You can also use the RED/SPEED FADER (13) to control the red LEDs intensity, the GREEN/FADE TIME FADER (12) to control the green LEDs intensity, etc.

6. AUTO PROGRAM - Pressing this button will activate the auto program. The Auto Program can be controlled using the following:
   - The RED/SPEED FADER (13) will control the program speed.
   - The GREEN/FADE TIME FADER (12) will control the fade speed.
   - The BLUE/MASTER DIMMER FADER (11) will control the RGB LEDs intensity.
   - The WHITE/WHITE DIMMER FADER (10) will control the white LEDs intensity.

7. STROBE - Activates and deactivates strobing. Use the RED/SPEED (13) fader to adjust the strobe speed.

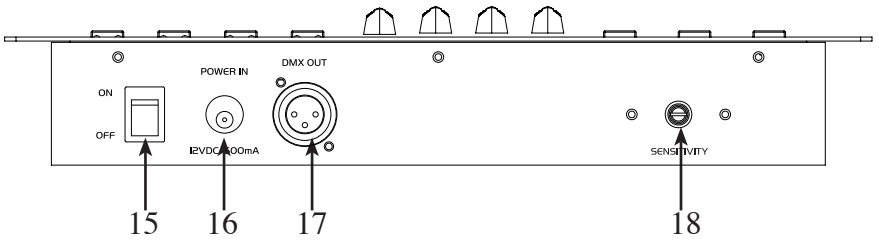
8. RGB FADE - Pressing this button activates RGB FADE.

The RGB FADE can be controlled using the following:
- The RED/SPEED FADER (13) will control the program speed.
- The GREEN/FADE TIME FADER (12) will control the fade speed.
- The BLUE/MASTER DIMMER FADER (11) will control the RGB LEDs intensity.
- The WHITE/WHITE DIMMER FADER (10) will control the white LEDs intensity.

9. SOUND ACTIVE MODE - Pressing this button will activate the sound active mode, the sensitivity of the sound active mode can be adjusted using knob located on the rear of the controller. Other adjustmenst can be made using the following:
   - The GREEN/FADE TIME FADER (12) will control the fade speed.
   - The BLUE/MASTER DIMMER FADER (11) will control the RGB LEDs intensity.
   - The WHITE/WHITE DIMMER FADER (10) will control the white LEDs intensity.
10. WHITE/WHITE DIMMER FADER - Use this fader to control the output intensity of the white LEDs.
11. BLUE/MASTER DIMMER FADER - This fader has two functions.
    - This fader can be used to control the blue LEDs intensity in MANUAL RGBW MODE.
    - In AUTO PROGRAM, CHASE MODE, RGB FADE, COLOR MACROS, & SOUND ACTIVE MODE this fader will control the RGB LEDs output intensity.
12. GREEN/FADE TIME FADER - This fader has two functions.
    - This fader can be used to control the green LEDs intensity in MANUAL RGBW MODE.
    - In AUTO PROGRAM, CHASE MODE, RGB FADE, COLOR MACROS, & SOUND ACTIVE MODE this fader will control the fade time.
13. RED/SPEED FADER - This fader has three functions.
    - This fader can be used to control the red LEDs intensity in MANUAL RGBW MODE.
    - In AUTO PROGRAM, CHASE MODE & RGB FADE this fader will control program speed.
    - In COLOR MACROS MODE this fader will create your color to remain static.
14. COLORS/CHASES/PRESETS - Press the COLOR buttons to activate desired COLOR MACROS, or when in CHASE MODE the color buttons will activate chases. See the built-in chases on page 10.








15. POWER SWITCH - Accepts a DC 9V~12V, 300mA minimum, power supply.
16. DC INPUT - Accepts a DC 9V~12V, 300mA minimum, power supply.
17. DMX OUT - Used to send DMX signal to the compatable LED fixtures.
18. SOUND SENSITIVITY - Use this knob to adjust the sound sensitivity.

**Note: When the power is switched Off and then back On, the controller will return to the last operating mode.**

**Sound Active Mode:**
1. Press the SOUND ACTIVE button and the corresponding LED above the button will light.
2. Use the SOUND SENSITIVITY knob located at the rear to adjust the sound sensitivity level.
3. Use the faders (10, 11, & 12) to adjust the LED intensity & fade time. The RED/SPEED fader (13) cannot be used in this mode.

**Chase Mode:**
1. Press the CHASE button and the corresponding LED above the button will light.
2. Press 1 of the 9 COLOR buttons (14) located in the Color/Chases region to activate a chase. Please see the chase chart on page 12.
3. Once your desired chase program has been selected, use the faders (10, 11, 12, & 13) to adjust the LED intensity, fade time, and chase speed.

**Auto Mode:**
1. Press the AUTO button and the corresponding LED above the button will light.
2. Use the faders (10, 11, 12, & 13) to adjust the LED intensity, fade time, and chase speed.

**Color Macros Mode:**
1. Press the COLOR MACROS button and the corresponding LED above the button will light.
2. Use the faders (10, 11, 12, & 13) to adjust the preferable static color, LED intensity, and fade time.

**RGB Fade Mode:**
1. Press the RGB FADE button and the corresponding LED above the button will light.
2. Use the faders (10, 11, 12, & 13) to adjust the LED intensity, fade time, and chase speed.

**Manual RGBW Color Mode:**
1. Press the MANUAL RGBW button and the corresponding LED above the button will light.





2. Press any of the 9 color buttons or use the RGBW faders to make your own desired color.
3. Use the faders (10, 11, 12, & 13) to adjust the LED intensities.

**Preset Mode:** Using these buttons you are able to save and recall a chase, color, or program.
1. To save a chase, color, or program, press 1 of the 3 PRESET button for at least 3 seconds. When all of the LEDs flash 3 times, this informs you that the save was successful.
2. To recall the saved chase, color, or program, press the corresponding PRESET button.



| BUTTONS IN COLORS/CHASES REGION | CHASE MODE DESCRIPTION |
|---|---|
| RED button | Red/Green chase |
| ORANGE button | Green/Blue chase |
| YELLOW button | Red/Blue chase |
| GREEN button | Red/Cyan chase |
| CYAN button | Green/Purple chase |
| BLUE button | Yellow/Blue chase |
| PURPLE button | Red/Green/Blue/Yellow/Purple/Cyan/White chase |
| MAGENTA button | Red/Green/Blue/Red/Blue/ Yellow /Cyan/ Yellow chase |
| WHITE button | Yellow/Purple chase |

## 1 Year Limited Warranty

MANUFACTURER'S LIMITED WARRANTY

A. American DJ, Inc. hereby warrants, to the original purchaser, American DJ and American Audio products to be free of manufacturing defects in material and workmanship for a prescribed period from the date of purchase (see specific warranty period on reverse). This warranty shall be valid only if the product is purchased within the United States of America, including possessions and territories. It is the owner's responsibility to establish the date and place of purchase by acceptable evidence, at the time service is sought.

B. For warranty service you must obtain a Return Authorization number (RA#) before sending back the product. Contact American DJ, Inc. Service Department at 800-322-6337. Send the product only to the American DJ, Inc. factory. All shipping charges must be pre-paid. If the requested repairs or service (including parts replacement) are within the terms of this warranty, American DJ, Inc. will pay return shipping charges only to a designated point within the United States. If the entire instrument is sent, it must be shipped in it's original package. No accessories should be shipped with the product. If any accessories are shipped with the product, American DJ, Inc. shall have no liability whatsoever for loss of or damage to any such accessories, nor for the safe return thereof.

C. This warranty is void if the serial number has been altered or removed; if the product is modified in any manner which American DJ, Inc. concludes, after inspection, affects the reliability of the product; if the product has been repaired or serviced by anyone other than the American DJ, Inc. factory unless prior written authorization was issued to purchaser by American DJ, Inc.; if the product is damaged because not properly maintained as set forth in the instruction manual.

D. This is not a service contract, and this warranty does not include maintenance, cleaning or periodic check-up. During the period specified above, American DJ, Inc. will replace defective parts at its expense with new or refurbished parts, and will absorb all expenses for warranty service and repair labor by reason of defects in material or workmanship. The sole responsibility of American DJ, Inc. under this warranty shall be limited to the repair of the product, or replacement thereof, including parts, at the sole discretion of American DJ. All products covered by this warranty were manufactured after January 1, 1990, and bear identifying marks to that effect.

E. American DJ, Inc. reserves the right to make changes in design and/or improvements upon its products without any obligation to include these changes in any products theretofore manufactured. No warranty, whether expressed or implied, is given or made with respect to any accessory supplied with products described above. Except to the extent prohibited by applicable law, all implied warranties made by American DJ, Inc. in connection with this product, including warranties of merchantability or fitness, are limited in duration to the warranty period set forth above. And no warranties, whether expressed or implied, including warranties of merchantability or fitness, shall apply to this product after said period has expired. The consumer's and/or Dealer's sole remedy shall be such repair or replacement as is expressly provided above; and under no circumstances shall American DJ, Inc. be liable for any loss or damage, direct or consequential, arising out of the use of, or inability to use, this product.

This warranty is the only written warranty applicable to American DJ and American Audio Products and supersedes all prior warranties and written descriptions of warranty terms and conditions heretofore published.

## Specifications

| | |
|---|---|
| POWER SUPPLY: | 12V DC, 500mA UL Approved. |
| POWER CONSUMPTION: | 3.6W |
| OUTPUT: | 3-Pin XLR |
| AUDIO TRIGGER: | Built-In Microphone |
| DIMENSIONS: | 327mm(L) x 140mm(W) x 48mm(H)<br>12.9” (L) x 5.5” (W) x 1.9” (H) |
| WEIGHT: | 2.4Lbs./ 1.1Kgs. |
| WARRANTY: | 1 Year (365 Days) |

***Please Note:*** *Specifications and improvements in the design of this unit and this manual are subject to change without any prior written notice.*

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